

Before the Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
Amendment of Parts 0, 1, 2, 15 and 18 of)	ET Docket No. 15-170
the Commission's Rules regarding)	
Authorization of Radiofrequency)	
Equipment)	
)	
Request for the Allowance of Optional)	RM-11673
Electronic Labeling for Wireless Devices)	
)	
)	

COMMENTS

In response to the Federal Communications Commission's ("Commission's") Notice of Proposed Rulemaking in the above-captioned proceeding,¹ the American National Standards Institute Accredited Standards Committee C63® ("ASC C63") submits these comments. The Commission has raised various issues in the NPRM which involve (or affect) some of ASC C63's major standards including: (i) ANSI C63.4-2014: "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" ("C63.4-2014"), (ii) ANSI C63.10-2013: "American National Standard for testing unlicensed wireless devices" ("C63.10-2013"), and (iii) draft ANSI C63.26-2015 "American National Standard of procedures for compliance testing of transmitters used in licensed radio services" ("C63.26"). Below are ASC C63's comments on some of these issues.

¹ In the Matter of Amendment of Parts 0,1, 2, 15 and 18 of the Commission's Rules regarding Authorization of Radiofrequency Equipment and Request for Allowance of Optional Electronic Labeling for Wireless Devices, ET Docket No. 15-170, RM-11673, *Notice of Proposed Rulemaking* (rel. July 21, 2015) ("NPRM").

Referencing KDB Publications (¶¶ 14 and 107)

ASC C663, like the Commission, recognizes the importance of the Commission's online Knowledge Data Base ("KDB") which contains supplemental guidance on equipment authorization topics for laboratories, manufacturers and other interested parties. In the NPRM, the Commission proposes to "update [its] rules to reflect guidance that has been provided through the KDB."² In addition, the Commission proposes to "modify Section 2.947(a)(3) to specifically include a reference to the advisory information that are available in the Commission's online KDB publications."³

ASC C63 enthusiastically supports this type of integration and referencing of KDB publications. Based on first-hand experience, ASC C63 is aware of numerous instances where a party had questions about the C63.4 standard, but was unaware that a KDB existed that addressed those questions.⁴ Further, ASC C63 believes that there has to be a mechanism that is indicated in the Rules to facilitate the finding of KDBs that are issued on standards referenced in the Rules, including ASC C63 standards. This can be accomplished by referencing the applicable KDBs (existing and those in the future) with an exemplary notation within the relevant Commission

² NPRM at ¶ 14.

³ *Id.* at ¶ 107.

⁴ ASC C63 has identified the following current KDBs that apply to C63.4: (i) KDB 704992 covering test site validation about 1 GHz; (ii) KDB 822428 indicating that C63.5 is to be used for antenna calibration; (iii) KDB 29995 confirming that the receiving antenna has to be aimed at the source of emissions; (iv) KDB 714737, testing using an average detector; (v) KDB 966099, log vs. linear detector; (vi) KDB412172, ERP and EIRP guidance; and (vii) KDB 449343, pre-calibrated fields.

Rule such as “For additional guidance, *see, e.g.*, KDB xxxx” or a special location on the Commission’s web site that identifies KDBs related to ASC C63 standards.

Measurement Procedures of Section 15.31 (¶109)

The Commission asks whether the measurement procedures specified in Sections 15.31(a)(3) and (4) (referring to C63.4-2014 and C63.10-2013) are sufficient to address compliance testing for Part 15 devices so that certain procedures in Sections 15.21 – 15.35 can be revised to remove redundancy.⁵ ASC C63 believes that Sections 15.31(a)(3) and (4), as currently drafted, are sufficient for measuring compliance of unintentional and unlicensed intentional radiators given the references to the C63.4-2014 and C63.10-2013 standards within those sections. In fact, these referenced standards were overwhelmingly approved by the ASC C63 committee, a committee which the Commission is a member.

Moreover, ASC C63 agrees that in general, any reference to unintentional and unlicensed intentional measurement standards in sections 15.32 through 15.35 should be removed, and replaced with a reference to the appropriate ASC C63 standard. However, ASC C63 opposes the Commission’s proposal to replace the text in Section 15.33(a) regarding the frequency range of measurements for an intentional radiator with a reference to ANSI C63.10-2013 clause 5.5, which provides the same procedure as currently in the rules. It should be noted that the frequency range

⁵ NPRM at ¶109. Sections 15.31(a)(3) and (4) state: (a) The following measurement procedures are used by the Commission to determine compliance with the technical requirements in this part....(3) Other intentional radiators are to be measured for compliance using the following procedure: ANSI C63.10–2013 (incorporated by reference, see § 15.38). (4) Unintentional radiators are to be measured for compliance using the following procedure excluding clauses 4.5.3, 4.6, 6.2.13, 8.2.2, 9, and 13: ANSI C63.4–2014 (incorporated by reference, see § 15.38).

in C63.10 was derived from the Commission's Part 15 Rules. ASC C63 has concerns that a future KDB possibly might require some additional testing and as such, the specific frequency range in C63.10 may not be used as part of the measurement procedure. Retaining the references to frequency ranges in Section 15.33(a), on the other hand, eliminates any potential ambiguity regarding what frequency range must be tested. Additionally, the FCC does not control ANSI C63.10-2013⁶, which was approved by a ballot group which was significantly diverse in its representation. Because the removal from Section 15.33(a) of the reference to the frequency range of measurements de-links the ANSI C63.10-2013 standard from the rule, there could be a misalignment in the future between the rules and C63.10 if ANSI C63.10-2013 is modified.

Measurement Detector Functions and Bandwidth Requirements (¶109)

The Commission proposes to modify Section 15.35 to clarify the measurement detector function and bandwidth requirements, and to replace an old reference to CISPR Publication 16 with an updated reference to procedures in ANSI C63.4-2014.⁷ ASC C63 agrees that the reference can be made to C63.4-2014 for these requirements since C63.4-2014, in turn, references C63.2 as an undated reference (which means that the latest version of C63.2 is the appropriate reference to use). An update to C63.2 has recently been balloted and comments are being resolved. This update will reference CISPR 16-1-4: 2010 for instrumentation requirements up to 18 GHz and the current version of C63.2 between 18 GHz and 40 GHz. C63.4-2014 allows the use of CISPR 16-1-4 in Clauses 4.2.1 and 4.2.2. Thus, in several ways the information in the note in Section 15.35(a) is covered and can be removed.

⁶ Removal of ANSI C63.10-2013 clause 5.5, in favor of simply relying on the Commission's Rules, was at one time discussed within ANSI.

⁷ NPRM at ¶109.

ANSI C63.26: Measurement Procedures for Licensed Radio Service Transmitters (§111)

As the Commission states, ASC C63 is developing a new standard, ANSI C63.26, to address measurement procedures for testing transmitters used in licensed radio services.⁸ The Commission notes that many products today incorporate both licensed and unlicensed transmitters and there may be value in providing for the same test method to be used for a device that is subject to technical requirements in different rule parts. To facilitate this process, the Commission is asking for comment on incorporating ANSI C63.26 into the rules as soon as the standard becomes final.

The work on ANSI C63.26 is proceeding briskly, awaiting only ANSI public review and publication. C63.26 provides, as noted by the Commission, detailed measurement procedures to assist manufacturers and test laboratories to perform consistent and reliable measurements. This is needed to demonstrate compliance with the Commission's technical requirements for radio transmitters used in licensed radio services. ASC C63 agrees that, within the specific Scope of C63.26, it can potentially replace measurement procedures in Part 2 for RF power output, modulation characteristics, occupied bandwidth, spurious emissions at antenna terminals, field strength of spurious radiation, frequency stability, and frequency spectrum for licensed radio transmitters. ASC C63 also agrees with the Commission that references to Part 2 (and, by extension, ANSI C63.26) could replace the specific measurement procedures and details that are presently contained in many of the individual service rules.

⁸ *Id.* at §111.

In adopting the ANSI C63.26 standard, the Commission should provide an 18-month transition period to allow test labs to incorporate the standard into the scope of their accreditation to comply with the requirements of the recent Report and Order requiring labs to be accredited in order to perform Certification testing.

The Use of the Direct Method and/or Substitution Method for Radiated Emissions (§111)

In response to additional questions raised in the NPRM about modifying the measurement procedures in Part 2 for licensed radio transmitters, ASC C63 believes that Section 2.1053 should be modified to provide for the direct measurement method of radiated emissions or, as an alternative, the use of the substitution test method. It recommends that the Commission clarify that in cases where there is a dispute over the resulting data, using the substitution method shall take precedence over results using the direct method because the substitution method calibrates the site path-loss error out of the final results and results in lower test-levels uncertainty.

Declaration of Conformity, Verification and Suppliers Declaration of Conformity (§ 24)

The NPRM proposes to eliminate the use of Declaration of Conformity (DoC) procedures as a means of authorizing devices that are currently authorized with a DoC. Specifically, the Commission proposes to combine DoC with Verification, and to eliminate the requirement that testing be done by laboratories approved by the Commission. While ASC C63 has no position with respect to the elimination of DoC, it notes that the use of ISO 17025 accredited laboratories⁹ for DoC testing has resulted in an environment in which cases of harmful interference to a neighboring operators of licensed radio services and to other electronics devices are rare.

⁹ See 47 C.F.R. Sections 2.948(a) and (e).

Although the Commission may not need to approve individual laboratories, ASC C63 asks the Commission to make it clear in its rules, or made clear through the KDB, that all laboratories that perform any testing used for the various forms of the authorization of unlicensed emitters must comply with ASC C63 standards.

In summary, the applicable ASC C63 standards that should be used for all testing for Commission authorization include the following in Table 1¹⁰.

Table 1 – C63 Recommended Standards

Project / Standard #	Title
C63.2	Electromagnetic Noise and Field Strength Instrumentation, 10 Hz to 40 GHz Specifications
C63.4	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
C63.5	American National Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration of Antennas (9 kHz to 40 GHz)
C63.6	American National Standard Guide for the Computation of Errors in Open-Area Test Site Measurements
C63.7	American National Standard Guide for Construction of Test Sites for Performing Radiated Emission Measurements
C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
C63.23	American National Standard Guide for Electromagnetic Compatibility- Computations and Treatment of Measurement Uncertainty
C63.26	American National Standard of procedures for compliance testing of transmitters used in licensed radio services

¹⁰ A complete list of standards developed by ASC C63 is found at http://www.c63.org/documents/misc/matrix/c63_standards.htm

References to New and Revised Measurement Standards As They Evolve

As stated in the earlier ASC C63 filing for the adoption of C63.4-2014, ASC C63 asks that the Commission delegate authority to the Office of Engineering and Technology to update references to new and revised measurement standards as they evolve, rather than codifying them into the rules. ASC C63 believes that using the most current editions of these standards best serves needs of the Commission and hence these editions should take precedence in being referenced in the Commission's Rules. The process used for approval of these latest editions includes approvals by a wide variety of users including manufacturers and testing organizations and as such further supports the use of the current editions.

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We thank the Commission for this opportunity to share our comments in this proceeding.

Respectfully submitted,

American National Standards Institute Accredited
Standards Committee C63®

/s/ Mr. Daniel Hoolihan

Chairman,
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